

Welfare and the parlor: Strategies to extended low stress handling to milking fresh heifers

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If you have ever milked cows, likely you are aware that milking fresh heifers for the first time can be a stressful and hazardous experience for both milking technician and cattle alike. Given the value of a springer and the value of employees on a dairy, there is much to be gained by improving the experience for both! Dairies that place value on improving the dynamics of how fresh heifers are brought into the milking string stand to have a competitive advantage in production, milk quality and return on labor investment. There are three main areas that owners and managers, and the veterinarians that advise them can make a positive impact in this area.

Assess your culture!

As an owner or manager, we need to understand the situations we are placing our people and cattle in. The more often we challenge employees and the more difficult the challenge they face is, the more likely there will be occasional bad outcomes, and actions that they and you may regret. When the needs and instincts of cattle and the needs and instincts of stockmen come into conflict animal care and outcomes suffer along with attitudes and morale of our team. In this current dairy economy, both cattle and personnel are nearly irreplaceable resources! The role of dairy leadership is to do what is within our power to see that our team and our cattle are placed into the best possible situations as often as possible.

Training is one of the best ways to shape a culture, and many dairies do invest in animal handling training. Most of that training focuses on what to do when the situation is normal or alternately what never to do. The best training discusses what to do when the situation gets challenging. Do your people understand:

- It is ok to ask for help and if so who to contact.
- How to be emotionally aware and realize when the situation is escalating and what “outs” may exist to de-escalate both themselves and the animal(s).
- Understand that if a heifer does not make the turn to load, its ok to milk her sideways.
- If the heifer short loads, that’s ok. Simply milk her where she is rather than try to back her out.
- It is ok to not milk a heifer out completely if you are trying to teach her that the unit comes off with the detacher, rather than learn to kick the unit off repeatedly.
- If an animal is too “kicky”, you can try having someone distract her from the front, or perhaps put her into hobbles.
- If all else fails, it is also ok to not milk her this shift rather than risk an injury.

Many parlors have a tight schedule they must maintain, and in truth, the entire dairy function is orchestrated around the milking center. Ask most milking technicians, and they will tell you that the quickest way to get management’s attention is to let the parlor fall behind schedule. To make matters worse, for many dairies, the fresh heifers are the first pen milked during

the shift, so if they do fall behind, they will spend the rest of the 8-12 hours playing catch up! While most dairies emphasize slow and relaxed stockmanship with employees, upholding those standards can be challenging with this pen!

Many dairies coach milking technicians to handle cows calmly, gently and slowly. These are great principles to approach stockmanship with! At the same time, many dairies employ people with a position title of “cow pusher”. This along with the discussion prior serve to create confusion and doubt about what a leadership team says as opposed to what they demonstrate they truly value.

Facilities

For the better part of the last 40 years, the beef industry has been working hard on improving the layout and design of their cattle handling facilities to take advantage of natural cow behaviors and tendencies. The Bud Box and use of “tubs” with curved chutes and “no-backs” to work cattle are just a few key examples of this work. Much notable research and key observations have been made on how changes in lighting influence cow movement, and how shielding in key areas, flooring and good footing impact voluntary cow flow. Our colleagues have put this knowledge to good use. Most major land grant universities with significant beef programs have extension personnel who have significant knowledge in this area and offer guidance and even design specifications for producers.

Contrast that with much of the North American dairy industry. Despite most of the labor resources on a dairy being allocated to the parlor, and the parlor being far and away the most frequent animal handling interaction on a dairy, we have not as an industry taken similar steps as the beef industry. Most parlor entrance designs have little science or cow sense behind them. Most are standard designs specific to each milking equipment manufacturer designed by an engineer in an office with little hands-on cow experience. Still others are laid out based on the necessities of the building design and layout. Many parlors have issues with wet, slippery flooring, challenges with drainage in areas, stark light-dark transitions, lack shielding in key areas allowing for distractions, and require tight turns. While there are many well respected dairy programs at land grant universities in North America, I believe most of us would be hard pressed to think of one that has extension personnel who are knowledgeable in design of holding areas, crowd gates and parlor entrances!

Many dairies are their own stumbling block when it comes to handling fresh heifers through the parlor. Lack of needed maintenance of the cow deck and the milking stall itself are often significant detriments to voluntary cow flow, creating animals that either do not load into the stall or index correctly so that they can be milked easily, or that “short-load” creating empty stalls on a side or turn.

One of the best facility enhancements I have seen to parlors in regard to improving handling in the parlor for fresh heifers has been where dairies have added a swing gate to the entrance “V” or where the holding area necks down into the entrance. This allows for the milking technician to shrink the size of the holding area beyond that defined by the farthest advance of the crowd gate, while applying “pressure” to the cattle while allowing them to work the cattle from the side to create positive forward motion. In a conventional two-sided parlor, this gate is mounted on a post in the middle of the man entrance to the holding area, is long enough so when the crowd gate is fully advanced a person can still pass behind the gate when it is pointed straight away from the parlor and can swing to either side. In a rotary parlor, I typically try to mount the gate off of one of the posts that forms the transition from the angled portion of the holding area to the cow entrance. This gate again needs to be long enough that when pointing straight away from the parlor a man can still pass between it and the crowd gate. When not in use, this gate should be folded up against the angled portion of the holding area.

Management

Most of the available interventions for altering the fresh heifer milking dynamic are management-related.

1. Allow additional time to milk the fresh pen. Understand that these animals will be harder to handle, often require additional or different procedures beyond normal milking, and in general just take more time to complete all the milking steps. We can ease some of the stress of fresh heifer milking by giving our team ample time to do the job right and based on the principles we desire.
2. Add more labor to the parlor while milking fresh pens! To condition fresh heifers to proper milking etiquette more consistently and to improve the milking experience and animal outcomes for them, will require more people than that of our other lactating pens. Where possible, I would like to add a manager or other trusted employee who can not only be another set of hands, but can be a calming influence if the situation does get stressful, and is trusted to make decisions in challenging situations. An added benefit of this is that management has a good hands-on appreciation of the challenges the team faces and gets to see these new additions to the herd and how they are being started out.
3. Pre-train springing heifers to the parlor ahead of calving. This is probably the single biggest game changer available to a dairy, and yet many dairies resist embracing it. There are multiple approaches to pre-training, and all can work. Parlors with some down time or dairies with a separate hospital parlor are well positioned to do what I call a full training regimen. Two to three days a week, springers are brought to the holding area, enter the parlor through the cow entrance and are loaded into stalls. They have teat dip applied, and their udder touched but are not forestripped or milked. Many dairies will include some offering of feed into this training to help make it a positive interaction. Even if a parlor does not have downtime, there is still an opportunity for a partial training. In this scenario, springers are brought to the holding area 2-3 days a week during the parlor CIP wash. Heifers enter the parlor through the parlor entrance, but the exit gates are left open, and heifers are allowed to mingle around the cow deck for a period of time. As with the full training this often involves offering

some feed such as dried hay flakes or TMR to help animals associate the parlor environment with a positive experience. In either scenario the animals get to experience the holding area and entering the parlor. They are also becoming acclimated to the sights, smells and sounds of the parlor.

4. Consider grouping fresh heifers and fresh cows together. While separating fresh heifers and fresh cows has advantages for feeding and diet formulation, co-mingling them has advantages for milking. Heifers can observe older cows loading into the parlor and use the herd instinct to follow them. Older cows also can help apply pressure to a heifer that is balking. They are far better at it than any human and can do so far more safely! This commingling strategy also helps to ensure that not every animal on a side will need special attention.
5. Harvest colostrum in the maternity pen. While this strategy has its challenges, it does consistently improve outcomes for the animal of the first milking and removes a significant amount of added workload and labor consumption from the parlor. It may also delay first milking in the parlor by a few hours.
6. As the saying goes, “a better life through chemistry!”. New advances in pheromones, particularly bovine maternal appeasement substance have shown some very positive results. There may be other advances on the way as well, so stay tuned. Drugs to improve milk letdown, such as oxytocin, can benefit some heifers greatly, but blanket use or use for several days does come with its own risks and is not recommended. Sedative drugs such as xylazine do not have a place in milking fresh heifers and should not be available on a dairy, nor should any drug cocktails or mixes that contain them! While the saying is not better life through mechanical engineering, anti-kick devices may have a place, but that place should be rare and as a last resort when other strategies have proven unsuccessful first.
7. Don't forget about the night shifts! Good milking experiences during the day can quickly be undone by negative experiences at night! If we are not offering the same set of solutions and resources to all shifts, then we are not managing the risks of poor handling and equally poor animal outcomes well either!

Milking fresh heifers has the potential to be a positive experience for both our cattle and our stockmen and women. To achieve that takes believing a better outcome is possible and being willing to look for ways within your operation to make belief a reality. The rewards for doing so can be significant for operations that see the value in changing this long held paradigm, and in a world of slim margins might make all the difference.

